



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,319	01/23/2004	James M. Tedesco	KOS-14302/03	8187
7590	09/19/2005			
John G. Posa Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C. 280 N. Old Woodward Ave., Suite 400 Birmingham, MI 48009-5394			EXAMINER EVANS, FANNIE L	
			ART UNIT 2877	PAPER NUMBER
DATE MAILED: 09/19/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/764,319

Applicant(s)

TEDESCO ET AL.

Examiner

F. L. Evans

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 and 25-28 is/are allowed.
- 6) ☒ Claim(s) 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413):<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)              |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0504</u> . | 6) <input type="checkbox"/> Other: _____   |

## DETAILED ACTION

### *The Abstract*

The abstract is too long. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

### *The Drawings*

The drawings are objected to under 37 CFR § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the plurality of optical gratings specified in claims 5, 18 and 26 must be shown or the features canceled from the claims. No new matter should be entered.

The drawings are further objected to because they are informal and do not comply with 37 CFR § 1.84.

Corrected drawing sheets in compliance with 37 CFR § 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR § 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 2877

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*The Information Disclosure Statement*

The prior art cited in the information disclosure statement filed on May 20, 2004 has been considered.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-24 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Jarvis et al (US 5,963,319).

Jarvis et al disclose an optical emission analysis system configured for use with a laser source of excitation energy (16) and a spectrograph (72) including an image sensor having an array of pixels (74), the system comprising: a probe (32) for collecting optical sample data; and a source of laser calibration wavelength light derived by edge-illuminating a diamond sample (lines 48-58 in column 5 and Fig. 1) or other material having a known spectral response relative to the laser. The system includes first optical fiber (22b) for delivering the excitation energy to the edge of the material (80) and a second optical fiber (22c, 22d) for carrying the known spectral response to the spectrograph (72).

*Allowable Subject Matter*

Claims 1-21 and 25-28 are allowed over the prior art of record.

As to independent claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical emission analysis system configured for use with a source of excitation energy and a spectrograph including an image sensor having an array of pixels, the system comprising

Art Unit: 2877

optical elements for directing the optical sample data and calibration light to the spectrograph so that adjacent data and calibration channels are formed on the image sensor, in combination with the rest of the limitations of the claim.

As to independent claim 18, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical emission analysis system configured for use with a source of excitation energy and a spectrograph including an image sensor having an array of pixels, the system comprising a plurality of optical gratings operative to disperse the optical sample data into higher and lower frequency components that form different data channels on the image sensor and optical elements for directing the calibration light to the spectrograph so that the data channels are between calibration channels, in combination with the rest of the limitations of the claim.

As to independent claim 25, the prior art of record, taken alone or in combination, fails to disclose or render obvious an optical emission analysis system configured for use with a source of excitation energy and a spectrograph including an image sensor having an array of pixels, the system comprising a broadband light source and one or more optical switches for routing the broadband light onto the image sensor to determine channel binning, in combination with the rest of the limitations of the claim.

#### *Fax/Telephone Numbers*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner whose telephone number is (571) 272-2414.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext 77. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/764,319

Page 5

Art Unit: 2877

  
**F. L. EVANS**  
**PRIMARY EXAMINER**  
**ART UNIT 2877**

fle  
September 16, 2005